

Amendments to the Specification:

Please replace the paragraphs starting at page 9, line 31, to page 10, line 33, with the following amended paragraphs:

Now, referring to Figures 2 and 3, a chamber 30 is illustrated which is employed during particle 24 application. The chamber 30 has a top side 32, a bottom side 34, and three vertical sides 36, 38, and 40 extending from the bottom side 34 to the top side 32. A door 42 is provided to permit access to the interior of the chamber 30. To assist in air flow within the chamber 30, which is further discussed below, the top side 32 comprises a screen 44 having a mesh number sufficiently large to prevent the particles 24 from exiting the chamber 30 during barrier layer 22 application to the adhesive layer 18. Extending outwardly from the top side 32 is a hopper 46 which is operably connected to the interior of the chamber 30. The location of the hopper 46 is not critical, but it has been found that substantially uniform distribution of the particles 24 occurs when the hopper 46 is proximate the intersection of either vertical side 38 and either vertical sides 36 or 40 or the intersection of the door 42 and either vertical sides 36 or 40. As illustrated, a port 48 having a valve 49 extends outwardly from vertical side 36 and is operably connectable to a fluid source, such as compressed air. The port 48 can extend outwardly from either of the vertical sides 36, 38, or 40, but should be disposed on the vertical side opposite the hopper 46. Additionally, the port 48 can extend outwardly from the door ~~[[44]]~~ 42. To assist in barrier layer 22 application when particles are being applied to a substrate 12/adhesive layer 18 assembly in which the substrate 12 is smaller than the bottom side 34, a funnel 50 is disposed within the interior of the chamber 30. The funnel 50 is mounted to vertical sides 36, 38, and 40 and extends from vertical sides 36, 38, and 40 and the door ~~[[44]]~~ 42 downwardly toward the bottom side 34 ~~substantially parallel to the respective vertical side and the door 34~~ to terminate at a funnel edge 52, thereby forming an opening 54. In one embodiment, the opening 54 has substantially the same peripheral shape as the substrate 12. That is, the funnel edges 52 align with the edges of the substrate. Accordingly, it has been discovered that substantially all of the particles 24 introduced into the interior of the chamber 30 through the hopper 46 accumulate on the adhesive layer 18.

In operation, a substrate 12/adhesive layer 18 assembly 11 is positioned within the chamber 30, and the door ~~[[44]]~~ 42 is closed and secured by a latch 56. The valve 49 is opened and a fluid, such as air or any gas which is inert with respect to the composition of the substrate 12, adhesive layer 18, and barrier layer 22, is introduced into the chamber at a rate

of about 3.5 standard cubic feet per minute ("SCFM") to about 12 SCFM. In one aspect of the invention, the fluid flow rate is about 7 SCFM. The fluid flow rate can be adjusted either higher or lower than about 3.5 SCFM to about 12 SCFM depending upon the particles 24 and the adhesive employed, and such flow rate can be determined through routine experimentation. Thereafter, the particles 24 are fed into the interior of the chamber 30 through the hopper 46, whereby the particles 24 adhere to the adhesive surface 20 to form the barrier layer 22 and the surface covering 10.

Amendments to the Claims:

Please amend claims 1, 2, 5-8, 13-15, 35, 39, 40 and 42-45. Claims 4, 9, 12 and 18-54 have been canceled. Please add new claims 55 to 70.

A detailed listing of all the claims that are, or were, in the application is presented below. Current amendments to the claims, including additions being shown by underlining and deletions being shown by strikethrough, are expressed in the listing.

Listing of Claims:

1. (Currently Amended) A self-adhering surface covering comprising:
a substrate;
a pressure-sensitive adhesive layer disposed on the substrate and having an adhesive surface ~~distal from~~ located opposite the substrate; and
a barrier layer disposed substantially on and covering from about 1% to about 10% of the adhesive surface, wherein the barrier layer comprises comprising a plurality of particles, the particles having a diameter substantially equal to or greater than the thickness of the adhesive layer, the particles being substantially non-adhesive, wherein the barrier layer exhibits particles having a crush resistance of at least about 10 psi while disposed on the adhesive layer,
wherein the surface covering has substantially no tack at about 10 psi at about 140° F. but has tack at about 20 psi at about 75° F and is crushable when subjected to a load of about 20 psi or greater, and wherein the particles are selected from the group consisting of solid particles and porous particles.

2. (Currently Amended) The surface covering as claimed in claim 1, wherein the particles are ~~randomly and~~ substantially uniformly distributed over the surface of the adhesive layer.

3. (Original) The surface covering as claimed in claim 1, wherein at least some of the particles are distributed on the adhesive surface in a pattern.

Claim 4 (Canceled).

5. (Currently Amended) The surface covering as claimed in claim 1, wherein the particles have a diameter ~~at least~~ substantially greater than the thickness of the adhesive layer.

6. (Currently Amended) The surface covering as claimed in claim 1, wherein the particles have a diameter ~~between~~ substantially from about 2 to about 6 mils.

7. (Currently Amended) The surface covering as claimed in claim 1, wherein the particles are distributed onto the adhesive surface in an amount ~~between~~ from about 0.05 [[and]] to about 0.2 grams/ft² of adhesive surface.

8. (Currently Amended) The surface covering as claimed in claim 1, wherein the particles are distributed onto the adhesive surface in an amount ~~between~~ from about 0.01 [[and]] to about 0.1 cm³/ft² of adhesive surface.

Claim 9 (Canceled).

10. (Original) The surface covering as claimed in claim 1, wherein the particles cover about 2% of the adhesive surface of the adhesive layer.

11. (Original) The surface covering as claimed in claim 1, wherein the particles are collapsible or fragile under conditions employed for pressure-bonding the surface covering to a desired site of bonding.

Claim 12 (Canceled).

13. (Currently Amended) The surface covering as claimed in claim 1, wherein the adhesive layer has a thickness ~~between~~ from about 1 ~~[[and]]~~ to about 2 mils.

14. (Currently Amended) The surface covering as claimed in claim 1, wherein the pressure-sensitive adhesive layer ~~[[is]]~~ comprises an adhesive selected from natural rubber adhesives, synthetic rubber adhesives, acrylic adhesives, vinyl acetate adhesives, urethane adhesives, and mixtures thereof.

15. (Currently Amended) The surface covering as claimed in claim 1, wherein the pressure-sensitive adhesive layer comprises an e-beam curable adhesive ~~comprising~~ formed from tridecyl acrylate and acrylic acid.

16. (Original) The surface covering as claimed in claim 1, wherein at least some of the particles are partially embedded in the adhesive layer.

17. (Original) The surface covering as claimed in claim 1, wherein the particles are capable of substantially resisting crushing upon being subjected to a load of about 60 lb/ft² which is dropped a vertical distance of about 1 foot.

Claims 18 to 54 (Canceled).

55. (New) The surface covering as claimed in claim 1, wherein the surface covering has substantially no tack at about 10 psi at about 140° F. but has tack at about 20 psi at about 75° F.

56. A method of manufacturing a self-adhering surface covering comprising the steps of:

applying an adhesive to a substrate to form an adhesive layer having an adhesive surface located opposite the substrate; and

applying a barrier layer on and covering from about 1% to about 10% of the adhesive surface, wherein the barrier layer comprises a plurality of particles, the particles having a diameter substantially equal to or greater than the thickness of the adhesive layer, the particles being substantially non-adhesive, wherein the barrier layer exhibits a crush resistance of at least about 10 psi and is crushable when subjected to a load of about 20 psi or greater, and wherein the particles are selected from the group consisting of solid particles and porous particles.

57. (New) The method as claimed in claim 56, wherein the surface covering has substantially no tack at about 10 psi at about 140° F. but has tack at about 20 psi at about 75° F.

58. (New) The method as claimed in claim 56, wherein the particles are substantially uniformly distributed over the surface of the adhesive layer.

59. (New) The method as claimed in claim 56, wherein at least some of the particles are distributed in a pattern on the adhesive surface.

60. (New) The method as claimed in claim 56, wherein the particles have a diameter substantially greater than the thickness of the adhesive layer.

61. (New) The method as claimed in claim 56, wherein the particles have a diameter from about 2 to about 6 mils.

62. (New) The method as claimed in claim 56, wherein the particles are distributed onto the adhesive surface in an amount from about 0.05 to about 0.2 grams/ft² of adhesive surface.

63. (New) The method as claimed in claim 56, wherein the particles are distributed onto the adhesive surface in an amount from about 0.01 to about 0.1 cm³/ft² of adhesive surface.

64. (New) The method as claimed in claim 56, wherein the particles cover about 2% of the adhesive surface of the adhesive layer.

65. (New) The method as claimed in claim 56, wherein the particles are collapsible or fragile under conditions employed for pressure-bonding the surface covering to a desired site of bonding.

66. (New) The method as claimed in claim 56, wherein the adhesive layer has a thickness from about 1 to about 2 mils.

67. (New) The method as claimed in claim 56, wherein the pressure-sensitive adhesive layer comprises an adhesive selected from natural rubber adhesives, synthetic rubber adhesives, acrylic adhesives, vinyl acetate adhesives, urethane adhesives, and mixtures thereof.

68. (New) The method as claimed in claim 56, wherein the pressure-sensitive adhesive layer comprises an e-beam curable adhesive formed from tridecyl acrylate and acrylic acid.

69. (New) The method as claimed in claim 56, wherein at least some of the particles are partially embedded in the adhesive layer.

70. (New) The method as claimed in claim 56, wherein the particles are capable of substantially resisting crushing upon being subjected to a load of about 60 lb/ft² which is dropped a vertical distance of about 1 foot.

Amendments to the Drawing:

The attached sheet of drawings includes changes to Figure 2. This sheet, which includes Figures 1 to 3, replaces the original sheet of informal drawings including Figures 1 to 3, originally filed with the application. In Figure 2, mislabeled elements 41 and 44 have been corrected to 44 and 42, respectively.

Attachment: Replacement Sheet
Annotated Sheet Showing Changes

REMARKS

In the specification, the carryover paragraph on pages 9 and 10 and the first full paragraph on page 10 have been amended to correct minor clerical errors. The reference numeral for door 42 as set forth on page 9, line 33, and page 10, line 8, was mislabeled on lines 13, 17 and 24 of page 10. The phrase deleted from page 10, lines 17 and 18, improperly describes the funnel 50 as shown in Figure 3. Therefore, it has been deleted.

In amended Figure 2, mislabeled elements 41 and 44 have been corrected to 44 and 42, respectively. Support for the changes are found at page 9, line 33, and page 10, lines 2 and 8.

The Examiner has issued an election/restriction requirement in the above-identified Office Action. Restriction is required between the invention of Group I., claims 1-17, 35-37, 39-51 and 53-54, and the invention of Group II, claims 18-34, 38 and 52.

The Examiner's attention is drawn to paragraph 4 of the Division Program Application Transmittal Form where claims 18 to 54 were canceled prior to the calculating the filing fee. In view of the present Office Action, the method claims 35, 37, 39, 40, 42 to 45, 47, 48 and 50 to 54 have been re-presented as new claims 56 to 67, 69 and 70.

Claim 68 is of similar scope to canceled claim 52, but is dependent from new claim 56. Therefore, since claim 56 defines an invention of Group I, new claim 68 also falls within Group I.

Claim 55 presents the limitation of the surface covering having substantially no tack at about 10 psi at about 140° F. but has tack at about 20 psi at about 75° F. This limitation was deleted from original claim 1.

Pursuant to the restriction/election requirement, Applicants hereby elect the invention as claimed in Group I., claims 1-17 and newly added claims 55-70.

The claims have been amended to conform to the language of the allowed claims in the parent application USSN 09/685,305. The difference in the scope of the claims is that the claims of the parent application require the adhesive to be substantially non-stringing.

Applicants submit that the amended claims are in a condition for allowance. Therefore, early consideration and timely issuance of a Notice of Allowance are respectfully requested.

Respectfully submitted,

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Date

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April M. Fiedler

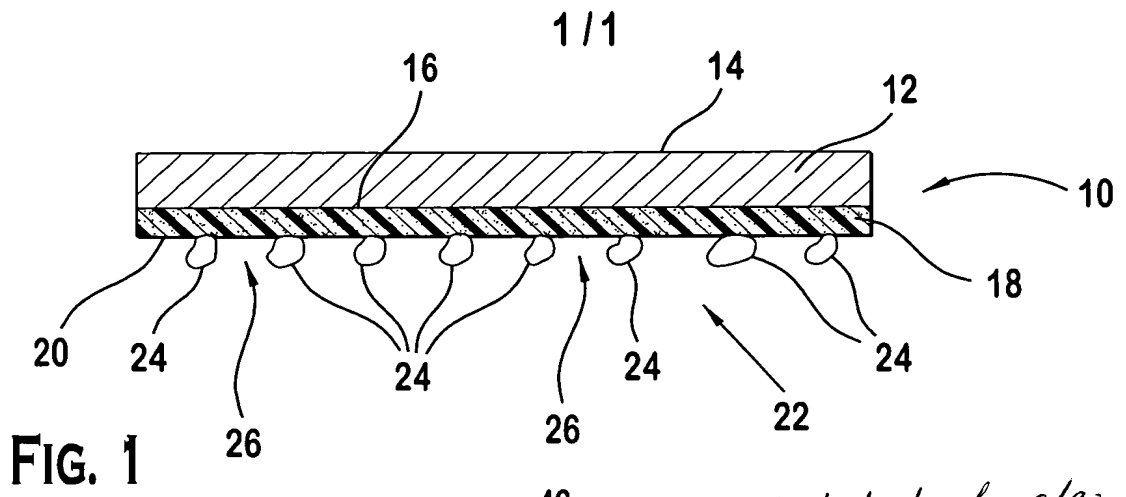


FIG. 1

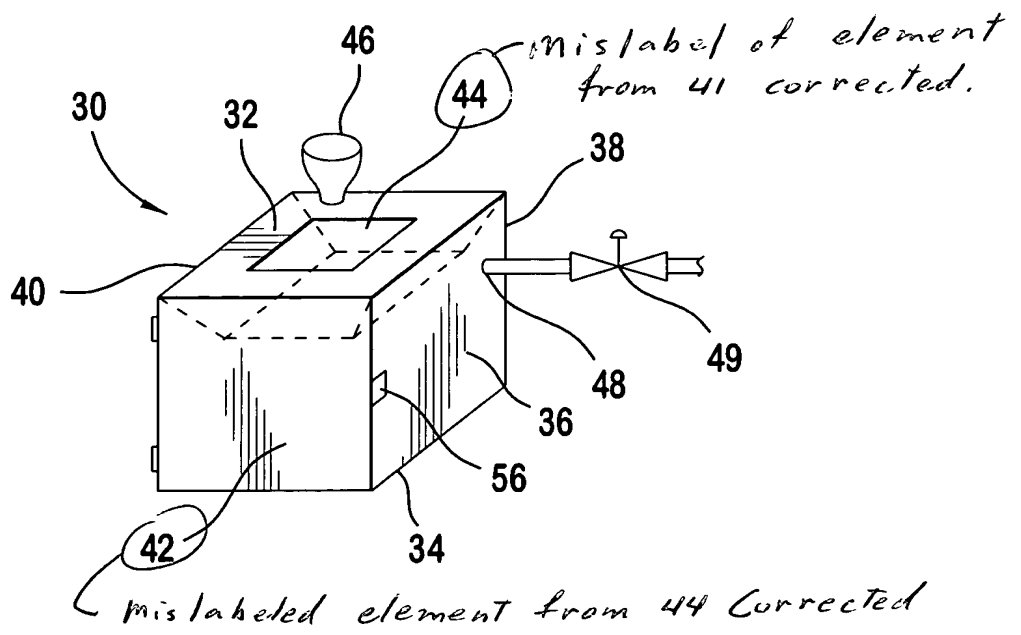


FIG. 2

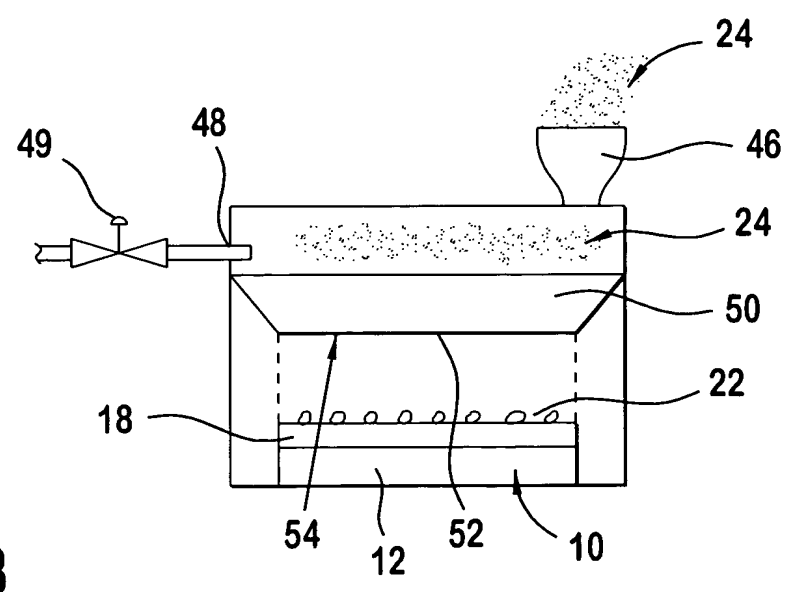


FIG. 3